

REMARKS

Claims 1, 3, 5-8-11, 13, 14, 16, 18-21, and 23-27 are pending in the application. By this amendment, claims 1, 8, 14, and 21 are amended to more precisely recite the features of the claims. No new matter is introduced. Support for the amendments may be found at least at page 40, lines 12-15 of the specification. Reconsideration and allowance of the claims in view of the above amendments and the remarks that follow are respectfully requested.

Claim Rejections Under 35 U.S.C. §103

Claims 1, 3, 5-7, 14, 16, and 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liao (US Patent No. 7,188,168) in view of Mutreja (US Patent No. 7,039,050). Claims 8, 10, 11, 13, 21, 23, 24, 26 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liao in view of Mutreja in view of Banavar et al. (US Patent No. 7,050,432). Applicants respectfully traverse the rejections.

To establish a *prima facie* case of obviousness ... the prior art reference (or references when combined) must teach or suggest all of the claim limitations. *In re Vaeck*, 947 F.2d 488 (Fed. Cir. 1991) and *MPEP* § 2142.

In this case, independent claim 1, as amended, is directed to method for routing packets in a network in conjunction with a quality of service guarantee, comprising: receiving a packet having a header section and a payload section; inspecting the payload section of the packet in a network core as a prelude to routing the packet, the step of inspecting, comprising: extracting data attributes from the payload section, comparing the extracted data attributes to two or more attributes filters, and if the comparing step indicates that each of the two or more attributes filters is satisfied, performing a set of functions; determining a quality of service guarantee for the packet, said quality of service guarantee is associated with a reserved bandwidth; and selectively routing the packet based upon the inspecting and the quality of service guarantee, wherein each attributes filter describes a set of events that a subscriber is interested in receiving from publishers.

Independent claim 8, as amended, is directed to a method for routing messages in a network, comprising: receiving a message having a header section, at least one subject, and a plurality of data attributes; retrieving the subject and the data attributes from the message; retrieving a subscription based upon the subject; determining a quality of service guarantee for

the message, said quality of service guarantee is associated with a reserved bandwidth; applying the data attributes to the subscription in a network core in order to determine how to route the message, the subscription specifying a plurality of filters, the step of applying the data attributes, comprising: extracting data attributes from the payload section, comparing the extracted data attributes to two or more attributes filters, and if the comparing step indicates that each of the two or more attributes filters is satisfied, performing a set of functions; and selectively routing the message based upon the applying and the quality of service guarantee, wherein each attributes filter describes a set of events that a subscriber is interested in receiving from publishers.

Independent claim 14, as amended, is directed to an apparatus for routing packets in a network in conjunction with a quality of service guarantee, comprising a processor and a memory, said processor comprising: means for receiving a packet having a header section and a payload section; means for inspecting the payload section of the packet in a network core, an inspection comprising: extracting data attributes from the payload section, comparing the extracted data attributes to two or more attributes filters, and if the comparing step indicates that each of the two or more attributes filters is satisfied, determining how to route the packet; means for determining a quality of service guarantee for the packet, said quality of service guarantee is associated with a reserved bandwidth; and means for selectively routing the packet based upon the inspection results obtained from and the quality-of-service guarantees determined by the inspecting and quality of service modules above, wherein each attributes filter describes a set of events that a subscriber is interested in receiving from publishers.

Independent claim 21, as amended, is directed to an apparatus for routing messages in a network, comprising a processor and a memory, said processor comprising: means for receiving a message having a header section, at least one subject, and a plurality of data attributes; means for retrieving the subject and the data attributes from the message; means for retrieving a subscription based upon the subject, wherein the means for retrieving the subscription includes means for retrieving a plurality of filters corresponding with the subscription; means for matching the data attributes to the plurality of filters in a network core in order to determine how to route the message; and means for determining a quality of service guarantee for the message, said quality of service guarantee is associated with a reserved bandwidth; wherein each filter describes a set of events that a subscriber is interested in receiving from publishers.

In contrast, Liao generally describes a routing device that specifies protocol hierarchies among data packets using a packet classification language. Liao fails to teach or suggest “determining a quality of service guarantee for the message, said quality of service guarantee is associated with a reserved bandwidth” and “selectively routing the packet based upon the inspecting and the quality of service guarantee,” as recited in claim 1, 8, 14 and 21 of the instant application.

The Examiner alleges that Liao teaches determining a quality of service guarantee for the packet in column 2, lines 33-38 and col. 14, lines 40-43) and that the “policy based routing” noted in column 14 is equivalent to the claimed “quality of service.” Applicants respectfully disagree.

Liao simply mentions that “to provide quality of service (QoS) and fine grain traffic management, future networking applications require packet classifiers capable of handling large numbers of customized policies” (column 2, lines 33-38). This passage does not teach or suggest anything about “determining a quality of service guarantee for the packet; said quality of service guarantee is associated with a reserved bandwidth,” as recited in claims 1, 8, 14 and 21. Nor does it teach or suggest “selectively routing the packet based upon the inspecting and the quality of service guarantee,” as recited in claims 1, 8, 14 and 21.

Column 14, lines 40-43 of Liao provides that “the packet is then handled according to the detected token identifiers and group identifiers during subsequent processing by the routing device; e.g. firewall filtering, policy-based routing, and so on.” Nothing in this passage teaches or suggest that the “policy-based routing” is an equivalent of “a quality of service guarantee for the packet; said quality of service guarantee is associated with a reserved bandwidth,” as recited in claims 1, 8, 14 and 21.

Mutreja and Banavar do not cure the deficiency of Liao. Mutreja generally describes a system, method and apparatus for enabling semi-intelligent switching-based communication between diverse message source types. Banavar generally describes a technique for reliably multicasting a message within a router network. Neither Mutreja nor Banavar mentions anything about “a quality of service guarantee for the packet; said quality of service guarantee is associated with a reserved bandwidth,” as recited in claims 1, 8, 14 and 21. For this reason alone, claims 1, 8, 14 and 21 are patentable over Liao, Mutreja and Banavar.

Furthermore, Liao, Mutreja and Banavar fail to teach or suggest comparing the extracted data attributes to two or more attributes filters, wherein each attributes filter describes a set of events that a subscriber is interested in receiving from publishers, as recited in claims 1, 8, 14 and 21 of the instant application.

The Examiner notes in the Office Action that the input parser 902 of Liao was relied upon to establish the “comparing” step. The Examiner further asserts that the input parser 902 has within it the claimed “two or more attribute filters.”¹ Applicants respectfully disagree. The input parser 902 of Liao performs lexical scanning via pattern matching to identify lexical tokens. Liao does not teach or suggest comparing the extracted data attributes to two or more attributes filters, wherein each attributes filter describes a set of events that a subscriber is interested in receiving from publishers. Even if we assume, *arguendo*, that the input parser of Liao possesses a filter function, Liao still fails to teach or suggest “comparing the extracted data attributes to two or more attributes filters,” as recited in claims 1, 8, 14 and 21 of the instant application. Mutreja and Banavar also fail to teach or suggest “comparing the extracted data attributes to two or more attributes filters, wherein each attributes filter describes a set of events that a subscriber is interested in receiving from publishers.”

Accordingly, Liao, Mutreja and Banavar, individually or in combination, do not render independent claims 1, 8, 14 and 21 obvious because they fail to teach or suggest all of the claim limitations. Claims 3, 5-7, 11, 13, 16, 18-20 and 23-27 are patentable over Liao, Mutreja and Banavar because they depend from one of claims 1, 8, 14 and 21 and recite additional patentable subject matter. Withdrawal of rejections under 35 U.S.C. 103 is respectfully requested.

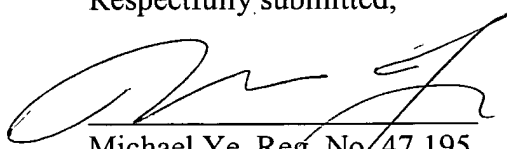
¹ The Office Action asserts on page 2, line 14-16 that “[i]n reply, it is only the input parser 902 that was relied upon to establish the ‘comparing’ step. Liao teaches that the output parser performs the comparing step and has within it the claimed ‘two or more attribute filters’.” (emphasis added). It appears that the “output parser” in the cited passage should be the “input parser.”

CONCLUSION

In view of the above remarks, Applicants respectfully assert that the application is in condition for allowance. Prompt examination and allowance of the claims is respectfully requested. Applicants respectfully request that a timely Notice of Allowance be issued in this case.

Respectfully submitted,

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